

Single Phase Glass Passivated Bridge Rectifiers

Reverse Voltage: 50V to 1000V
Forward Current: 1.0 Amp

Features

- Glass passivated chip junction
- Ideal for automated placement
- Low leakage current
- High forward surge capability
- Moisture sensitivity level: level 1, per J-STD-020

Mechanical Data

• Package: DBS

Molding compound meets UL 94 V-0 flammability rating

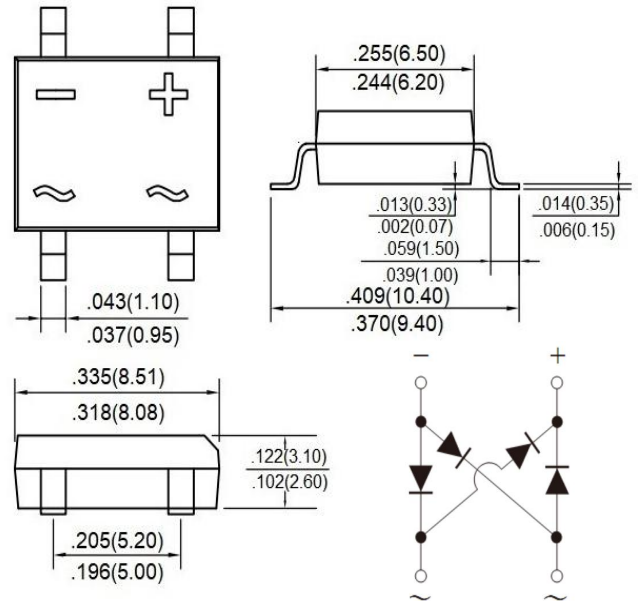
• Terminals: Matte tin plated leads, solderable per MIL-STD-750, Method 2026

• Polarity: Symbol marking on body

Typical Applications

Suitable for AC to DC bridge full wave rectification for SMPS, LED lighting, adapter, battery charger, home appliances, office equipment, and telecommunication applications.

DBS



Package Outline Dimensions in Inches (Millimeters)

Maximum Ratings and Electrical Characteristics (Ta=25°C Unless otherwise specified)

Parameter&Test Conditions	SYM.	DB101S	DB102S	DB103S	DB104S	DB105S	DB106S	DB107S	Unit
Device marking code		DB101S	DB102S	DB103S	DB104S	DB105S	DB106S	DB107S	
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Output Rectified Current (see Fig. 1)	I _{O(AV)}	1.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed On Rated Load	I _{FSM}	30							A
Operating junction range	T _J	-55 to +150							°C
Storage temperature range	T _{STG}	-55 to +150							°C

Thermal Characteristics (Ta=25°C Unless otherwise specified)

Parameter&Test Conditions	SYM.	DB101S	DB102S	DB103S	DB104S	DB105S	DB106S	DB107S	Unit
Maximum Thermal Resistance per Leg, Junction To Lead (Note 1)	R _{θJL}	15							°C/W
Maximum Thermal Resistance per Leg, Junction To Ambient (Note 1)	R _{θJA}	40							°C/W

Electrical Characteristics (Ta=25°C Unless otherwise specified)

Parameter&Test Conditions		SYM.	DB101S	DB102S	DB103S	DB104S	DB105S	DB106S	DB107S	Unit
Maximum Instantaneous Forward Voltage per diode	IF= 1A	V _{FM}	1.10							V
Maximum DC reverse current at rated DC blocking voltage per diode	T _A = 25℃	I _R	5							μA
	T _A = 125℃		100							

Notes:

1. Thermal resistance from junction to ambient and from junction to lead mounted on PCB with 0.5" x 0.5" (13 mm x 13 mm) copper pads.

Rating and Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED

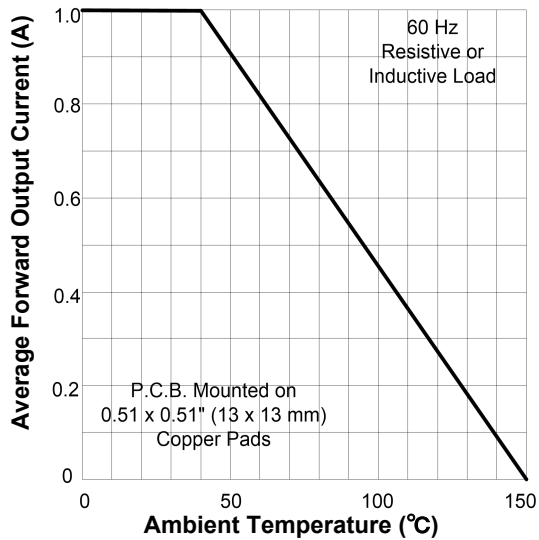


FIG. 2- -MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT Per Diode

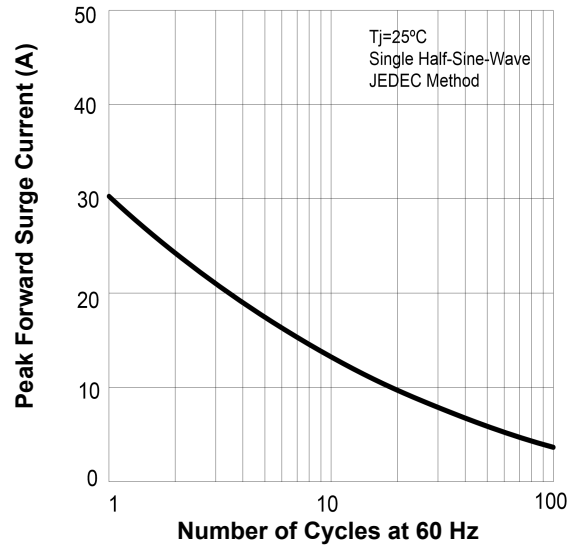


FIG. 3- TYPICAL FORWARD VOLTAGE

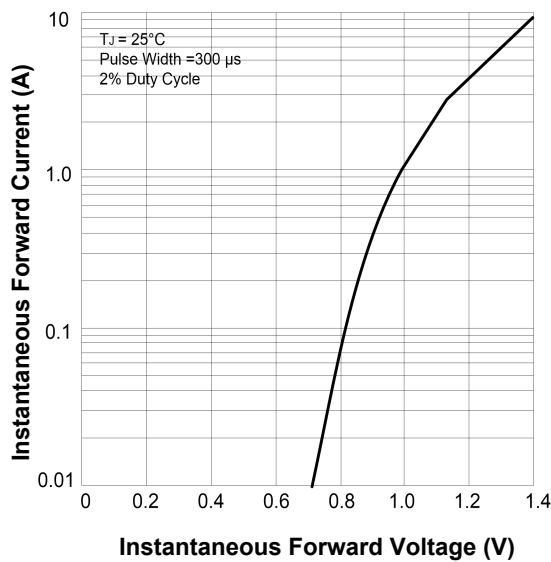
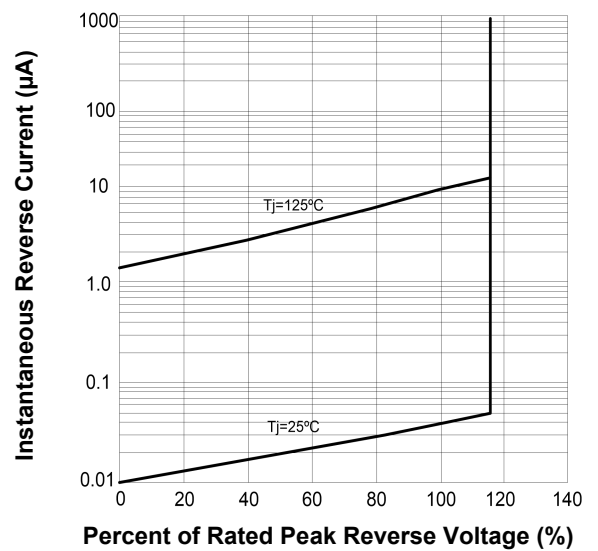


FIG. 4- TYPICAL REVERSE LEAKAGE CHARACTERISTICS



The curve above is for reference only.

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